The Sea People

- Progress on two Tiki 46's
- Energy Saving Navigation lights
- Rope substitute for Snap Shackle
- Lots of news from Sea People
- More on Wind & Weather

No 45

OCTOBER 2001

SAILS

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Jeckells
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The Sea People

Magazine of the Polynesian Catamaran Association

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Cover Picture: Paul Barnett sailing his GRP Tiki 26 "Madgic" in Poole Harbour, UK

Photo by Ken Hook

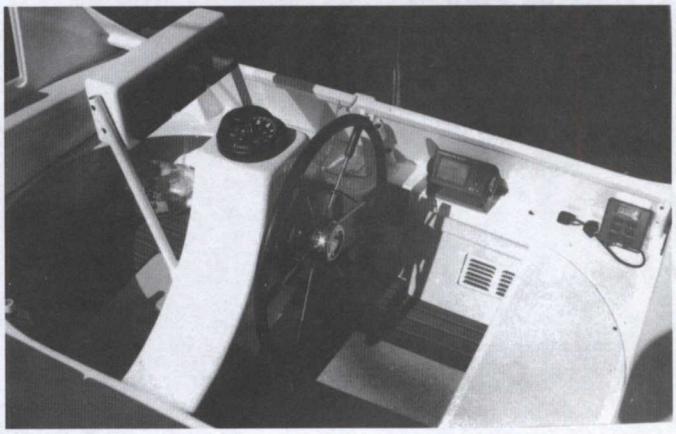
From the PCA Constitution:
The objects of the Association are to promote and further the interests of builders and owners of Polynesian Catamarans, and to encourage the development of good seamanship in all its aspects amongst the association's members.
"Polynesian Catamarans" shall mean the various classes of catamarans as designed by James Wharram.

RECENT LAUNCHINGS

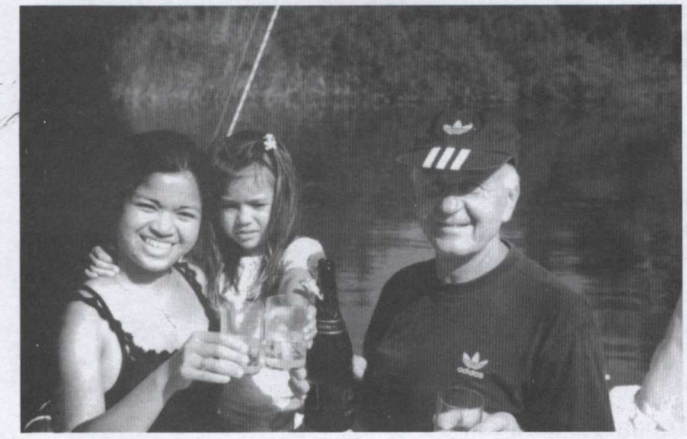
"JOJO" Launched August 2000

Josef Mayer has sent a few photos of JOJO, his beautiful Tiki 31..

Of particular interest is the beautifully designed and implemented helm station.
Too often we try and achieve totally symmetry on our cats (symmetrical as they are) , but Josef's single helm position is a refreshing breath of fresh air.

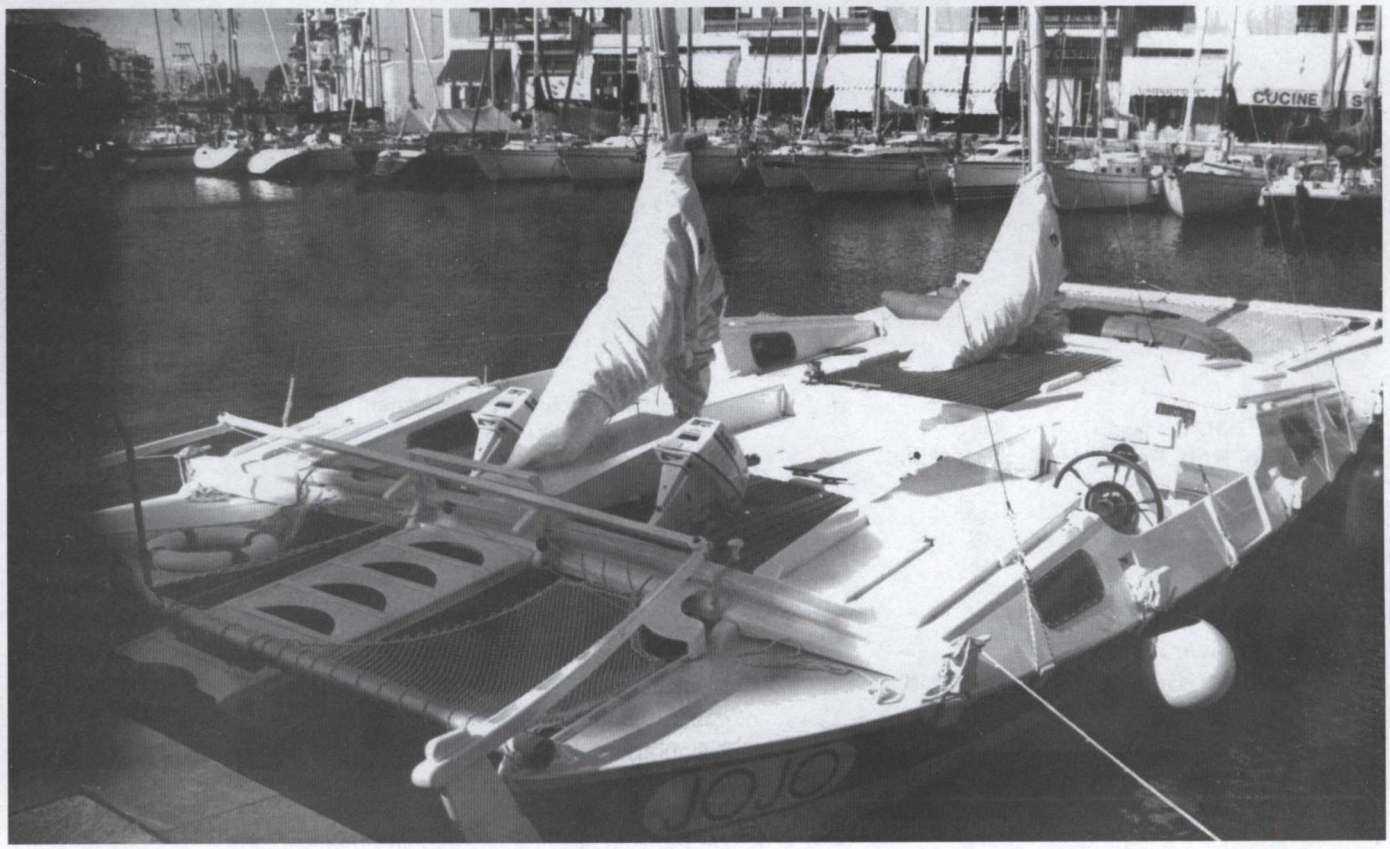


(above) JOJOs' helm station



(left) JO-sef is pictured with JO-Hannah and Liezel.

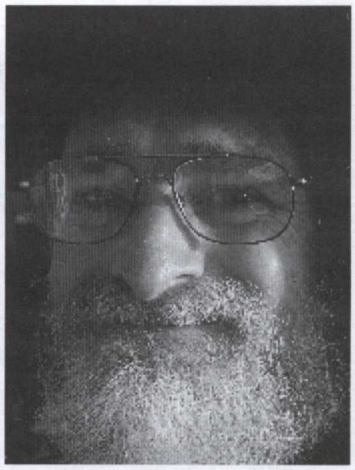
Below is JOJO in Grado, Italy



BIG 'ED

Once again a warm welcome to all of you from all of us, the PCA committee and editorial 'huddle', which conjures up a picture of happy typists pounding away, which is not far from the truth. Just remember in your imaginings that many of the typists have beards.

Let's not forget the great support from the authors among us. The ultimate threat appears to be working – that if articles were not forthcoming subsequent issues would be flooded with tales of building sailing and lounging around on Pilgrim!
A cruel way to go.....



Change, they say, is the only constant thing in thing this life. Hang on, I said that last time....

Well it appears to be true. Having settled in the little port at Caleta del Fuste on Fuerteventura, our marina 'management' have decided that in their infinite wisdom they can no longer cater for catamarans.

The cream of the joke is that by far the largest vessel in the port is (wait for it) a huge Fountaine Pajot cat owned and operated by said management. So you can delete Caleta del Fuste (aka Puerto del Castillo, Fuerteventura) from your waypoint list. Locals started calling it "Puerto Castigo" after the present incumbents took over.

It was sad to leave the genuine friends we have made there, not least Mauri who well recalls a large, brightly coloured Pahi 63 arriving in Arguineguin some years ago. He says hello to James and all aboard Gaia.

Our original (honeymoon) destination was La Graciosa, at the top of Lanzarote, and now we hope to work our way back up there, via Arrecife de Lanzarote where we need to visit the chandlers again. Some wonderful value to be had in the "Cofradia de Pescadores" warehouse. A fisherman's co-op, with helpful people and good chandlery.

Speaking a bit of the local language really helps, although it's not essential for visiting the popular ports. Still useful to know that "Puerto Castigo" translates to "Punishment Port"!

OK, I'm a smartypants, did Spanish at school, and a year's voluntary service in Bolivia polished it up, but Spanish is no help in Portugal, and this irked me. A fortnight of playing a 30-minute tape (from WHS) and a refresher a few hours before landfall seemed a good idea. I recommend it.

In Peniche on a sleepy Saturday this tape ensured that an urgent attempt to acquire port access pass and toilet keys from the gate guard turned into a hilarious half hour chatting in fractured Portuguese and admiring his clever wood-carvings. Without the tape we'd have been stuck staring at one another. Our prepared sheet of "ships info" in both languages helped us get started.

A big hairy visitor to any country needs to avoid misunderstandings, and my own approach is these language cassettes. Learn by ear, then read the words, so that the pronunciation stands a chance.

Others use their own methods, like Colourful Ray Kempthorne who was with us from Plymouth to Arrecife. He disdained the language cassette, and managed wonderfully with non-verbal methods that are a treat to watch. Often first aboard with the local news and gossip, too. Scott and Liz Brown told me that they'd done it this way in the Med. It's a talent I lack, so a bit of language research is needed to get me going.

Kit French had the how and why of it on the same voyage south. Not been ashore in Bayona ten minutes and he's in a 'phone booth calling his friends. A day or so later, friends arrive by car, and off they all go to the next town for plywood and other stores. Helps to have lived aboard Dad's Narai! Thanks for the stores and plywood guys.

So each to their own. It's pretty easy to learn the words for greetings and thanks in any tongue. Often that's all one needs to break the ice, and after that the words come more naturally. The important thing is to have a go! People don't bite.

Finally, profound apologies to all PCA members for the late arrival of this issue. It was only going to be a few weeks late, but a computer crash whilst backing up the Publisher files scrambled both master and backup. I did not know that was possible, but it seems it is when both are USB drives.

Sincere thanks to our ever-energetic Secretary Ken Hook and to multiply talented Vice Commodore/Webmaster/ Events Sec Dave Peak for extricating me from the mire of confusion and unfinished work in which I found myself. This is their issue. It bodes well for the future that Dave is running as Editor in the forthcoming election of PCA officers, since my year in the chair will be over.

Bon voyage and safe landfall.

Ben Mullett

YELLOW CAT – REFLECTIONS WHILE CRUISING IRISH WATERS

Dear Ben,

It was good to get a new revamped magazine. Having owned and sailed 2 much loved polycats, a junk rigged Pahi 31 and a Tiki 31 for the last 5 years, I'm reflecting on the reality of owning and sailing them, as we sail around one of the finest cruising grounds on the south west coast of Ireland.

The dreams I started with didn't always match the experience and I see new people deciding whether to choose a Wharram cat with similar aspirations. As we live in northern Europe I'm now returning to traditional deep draught boats as my vehicle out to sea, but if I lived in a warmer latitude where the sailing season was longer than the non-sailing season. I'd stick with the cat. I'm at the less yachty end of the polycat spectrum I guess, running a fairly rough and ready boat which I'd compare to say, having a teepee as opposed to a normal family tent, with all the life-style changes that entails. A Tiki 31 is a pretty versatile boat as envisaged in the plans, with plenty of potential for diving, fishing (the holds can be insulated for ice or make good seawater tanks) as well as working well with four cabins for your nuclear family while your are cruising. Other times one side is for girls and one for boys with the portaloo hygienically kept under the tents allowing privacy under canvas.

The galley can be on the other side and the whole area conveniently swilled down with a bucket of seawater if people chuck up, leaving the cabins as a dry, shoe free space for sleeping and relaxing.
I've heavily customised my Tiki 31 and if I were to build again, I'd incorporate a few changes, deeper draught and I'd stick with the vee hull form, to give us the necessary freeboard for our requirements. As it is I've built in asymmetrical tanks to the inside of each hull which slows us down in below surfing conditions, but means we still only draw 2'6" (76 cm).

I've built a large cockpit between the two tents to give a continuous safe space with a wheel and twin outboard engines for manouvreability. Logically this could have dispensed with the two inner beams if it had been laminated onto the bulkheads instead of the flexible lashing system, which however, I'm quite endeared to. Which other boats will talk to you as you go along in a seaway, sometimes I could swear it's in english! But it can get rather noisy in heavy weather with all the creaking and groaning and the gaps in between the hulls and cockpits inevitably let jets of water fly through when it is rough. I've not had a problem with slamming under the bridge as I kept plenty of clearance there with an arched floor, the more so as we are now higher out of the water with the extra buoyancy. The ramp is high on my list of priorities, one big enough to haul up an inflatable is my preference.

The schooner rig is great for balancing the sails to get self-steering on most points of sail, with a detachable bowsprit for downwind. We use a Navico wheel pilot for fine tuning, but this has let me down the last two seasons. I have made the pods over each cockpit permanent and on a dirty night it is a joy to be able to stand down below in the warmth of the cabin, keeping watch. After owning wooden boats I really appreciate having a composite boat to weather British winters. Even so the maintenance can be daunting.

I feel after five years sailing it is time to take the masts down for inspection and dismantle the beams although there is no evident problem. Working for the RNLI has shown me the sense in meticulous routine maintenance and it is the first gale that separates the well maintained boat from the other. But as we do not have the time, every year a few things break on the boat and usually I can fix them with a bag of bits and tools I carry. This year the steering wheel seized whilst running before a SE gale on a dark night! We started to gybe under reefed sails and storm jib (I wished I'd insisted on the extra set of reef ties from D-Sails) but hove to for the night. We were able to proceed next day under tiller and later repair the problem by stripping down the hub and greasing the bearings which are off a bicycle sprocket.

I've never looked back after buying two new mercury 4 hp four strokes with the saildrive props, which are incredibly economical and pack a surprising punch. But if I was working the boat with deadlines to meet and time spent at your chosen fishing or diving site at a premium, then I'd go for twin 25 hp outboards, preferably diesel. There are often conditions when you are just going nowhere I find, like tacking in light airs to windward or against the tide, as well as your flat calm. As a working boat I'd hope to be able to power at around ten knots although I'm not sure how much engine power would be needed.

The summer is never long enough to get far enough west on the Irish coast, so this year we are wintering the boat in Bantry Bay to get an early start next year and explore the whole west coast. It feels like it just gets better the further west one goes, with anchorages that make you feel like a millionaire, free safe harbours, friendly locals and you even get used to being wrapped in a warm blanket of cloud half the time.
But for now we have to make peace with our bank to pay for all the Murphys and read about lucky people not wintered up living the polycat lifestyle.

Paul Cobb "Yellow Cat"

REBIRTH OF A TANGAROA IN EASTERN QUEBEC

Update and invitation **from Geraldo** Daoust, Port Daniel, Atlantic Canada

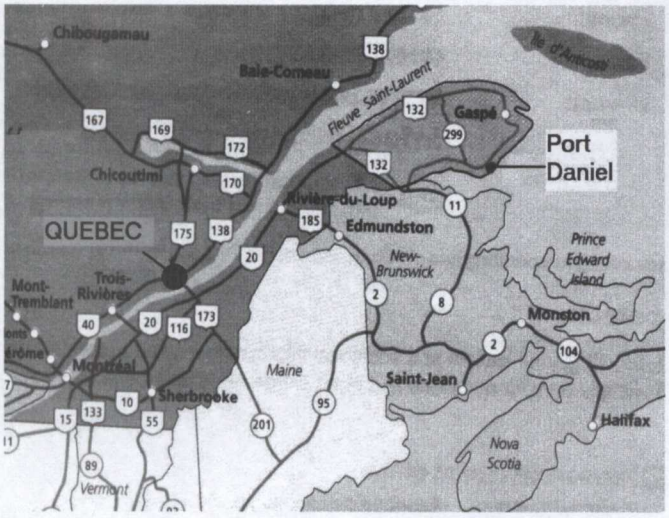
Bonjour Everyone,

I bought an abandoned Tangaroa MkIV in Sept 1999...in 2000 I worked on a fishing boat along the coast and up in Labrador (up towards Greenland) to pay for her. I usually shoe horses for a living, I'm a farrier. It's not so odd because both a horse and a boat are led with a sheet in your hand and I only know of two things in the world that can founder (again a horse and a boat) and in both cases it's very bad.

I went out to sea for 130 days, sometimes 200 miles out to earn the money, so it was a nice compromise.

This Tangaroa used to be called "Narong" owned by Mr. Fransell of Toronto (I believe). It will soon be renamed "Deracine" owned by an uprooted "back-to-the-lander".

I brought it home myself, taking it all apart and lifting it with a small jack while two beams were still connected. Then I braced each hull, took the beams off and slid a telescopic steel hay wagon with a "V" bracket under a hull at a time, very easy.



The boat is complete and the wood is in top shape. I sailed her twice in 1997 when George Miller bought it to the Gaspe coast from Toronto with the help of Real Girardeau, a seasoned sailor. But now it needs some serious cosmetic work. It was built with polyester resin and I have to take the skin off to re-sheath it using epoxy resin. In the process the leaking beam housing will need to be fixed. I've already taken the Polyester off and epoxy should go on in August. I'm presently spending some of the summer sailing the bay in an 18' sloop "Hirondelle" (which incidentally is for sale, trailer and all).
"Deracine" should, make that **will,** be in the bay next summer.

I was in touch earlier with Roger Ayres from Florida, sailing Tangaroa "Holly" right now (lucky fellow). Good wind Roger and thank you for the input, I might be down in Florida next autumn.

To all Polycat friends doing the Atlantic circuit, you are invited up here to visit to the Gaspe cruising ground, to rest and refill before crossing the pond.

NEWS FROM SEA PEOPLE

BRAZIL

To Polycat Committee,

Have been cruising on my yacht 'Sea Canary' (sorry she's a 36' steel boat), but I came across a couple of Wharram cats, both a long way from their homes, here in Brazil.

One a Pahi 26 "Magic Carpet" sailed from Natal, South Africa to Jacare (Port Cabedelo) with skipper Brian and crew John (flew to job in USA). Brian continued onto Caribbean with Trinidad and St Martin as intended destinations.

"Magic Carpet" at anchor in Jacare (Port Cabedelo) Brazil

The other, "Anak Mas" is a Tiki (looks more like a Tikiroa - Ed), perhaps 31 or bigger. The skipper has been away for 5 weeks but she is out of Amsterdam.

Hope this is of interest to members - perhaps the skippers can be asked to provide more info for future issues (are you out there guys ? - Ed).
Best Wishes,

Bob Parry - Fortaleza, Brazil

(late of Fish Hoek, South Africa)

FRANCE

"Dear Friends,

Please find pictures of progress of 'Harmony' my Tiki 46.
Our best wishes to the PCA office in this new century, which is the beginning of a new era for the PCA.

Bertrand" (Fercot)

Questions from Ed -
1. It looks like diagonal strip construction there Bertrand, any pitfalls/benefits that you can advise us about?
2. It also looks like you still plan on a bipod rig, is there any advice you can provide on your decision making process ? (from associated sketches)

La Pointe de Bout, Martinique, where 2 Pahi 42s were seen

We also received a postcard from Bertrand from Martinique over the summer -

"Dear Friends,

The island of Martinique is now my new home for a few years. To enjoy this little piece of paradise I've found an old Etap 28. But it's not impossible I'll build a Tiki 30 when my family joins me.

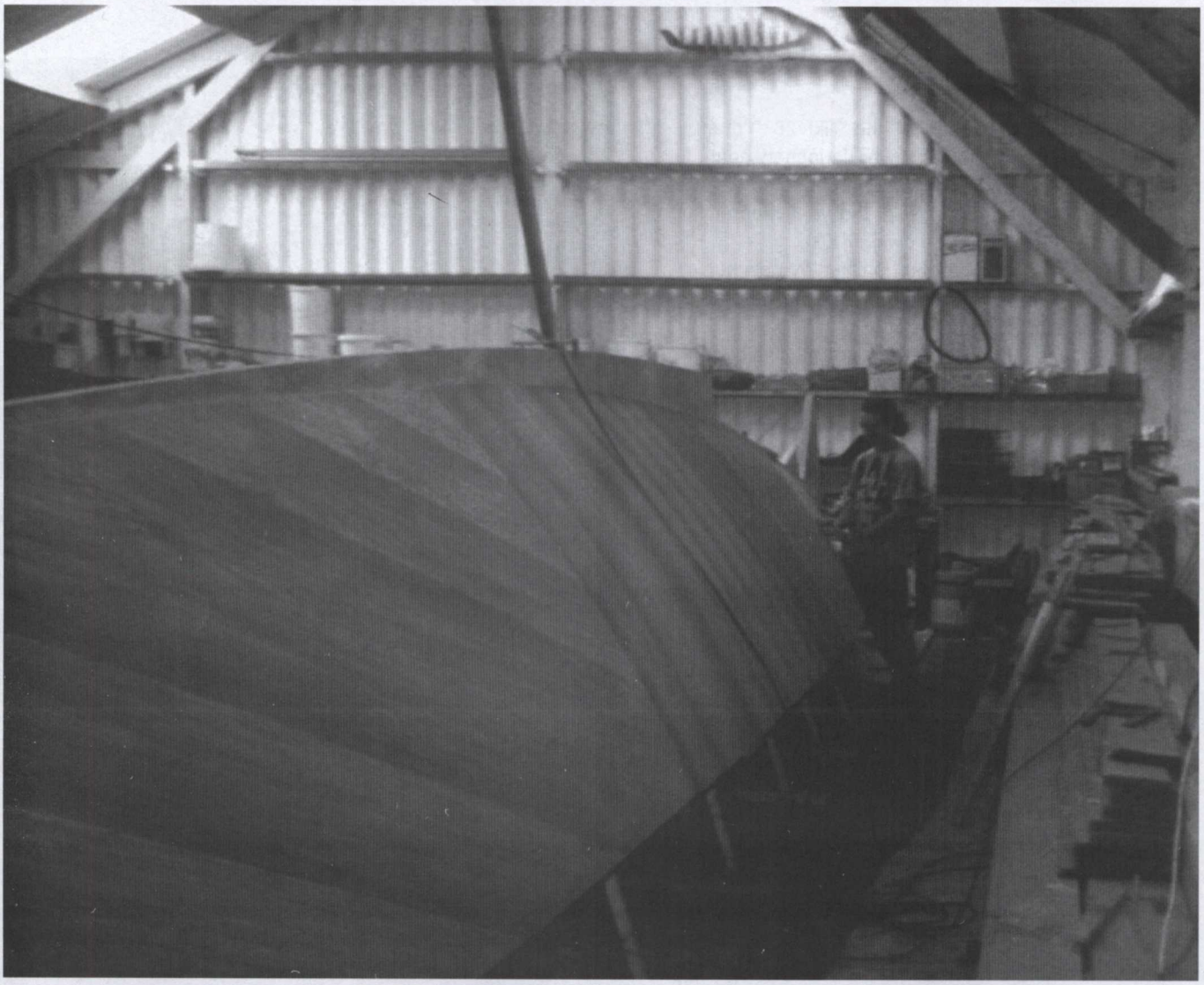
On the anchorage (to the west of Pointe du Bout) I've seen two Pahi 42s and at the entrance to the marina of Port Coke there is a Tehini with a cranb rig.

Next weekend I fly back to Brittany to continue the building our Tiki 46 during 5 weeks.
On my return, I'll buy a computer and so hope to have contacts with members of the Caribbean or West Indies area on the net.

Best Wishes,

Bertrand" (Fercot)

NEWS FROM SEA PEOPLE



"Harmony" in her shed in Brittany. Showing strip diagonal construction of lower hull-sides.

"Harmony" sheathing on the first hull. Bertrand reports that second hull also under way. Watch for update next issue.

"Harmony" right side up with lower portion of hull looking "tres magnifique".

NEWS FROM SEA PEOPLE

ITALY

Dear PCA,,

The second sailing season of the Tiki 26 'Ydra' started 8th of May 2000. She was launched near the port of Salerno by a big crane in sheltered water where a Tangaroa spends all the year moored (have you tried to contact the owner? Ed).
I was confident of 'Ydra's good qualities by now but still it was moving to see her again in her natural element. At her first launching, the previous year, I was excited and full of 'what if' fears having built her rather naively and without any previous experience of polycats.

Actually, I had never sailed a polycat before and my concerns were about the lashed beams (what if they give way?), about the rudder lashings (what if they chafe?).

I figured myself shipwrecked in the cockpit (what if it falls between the beams?) and a thousand other predicaments.

Everything went right anyway and I have to thank the simple and good design, not my very limited skill as a builder.

Since the boat was quite empty, no payload except me and a 6 hp outboard, she floated well above her marks and I happily put the outboard out on it's saddle, leaving it's hole in the cockpit covered and ready for different usage.

This year I changed the canvas seats for rigid plywood ones, added a second reef to the mainsail and bought a 26 sqm ghoster. The second reef and the storm jib along with the ghoster are more helpful than I like in such a temperamental sea. Another must was an awning to protect the crew from the scorching Mediterranean sun, moreover I painted the beams and cockpit pale blue with latex paint to avoid the blinding effect of shiny white paint.

She sails well and easily and in a stiff breeze coming from land just aft of the beam she averaged 10 knots without fuss and to windward can steer herself indefinitely with a shock cord, not to mention the sweet motion of the deep V hulls.

When I compare her with my fathers' old 26' quarter tonner I don't feel any nostalgia except for the big cabin and the heavy reliable diesel and of course for my teens!

In my decision for a polycat I was comforted by two books by Thomas Firth Jones "Multihull Voyaging" and "Boats to Go", the latter book while not completely dedicated to multihulls but with an exhaustive chapter about the Wharrams and the polycats. I recommend them to any would be builder or sailor of multihulls.

Even if I am not going to sail far with my cat I found all the suggestions of this experienced designer/builder/sailor full of good sense and his new designs a good compromise.
I still have a lot to learn sailing my cat and I hope to enjoy her for a long time. I do always hope to come and see you learn more, that would be real treat.

Fair winds,

Gian Michele Bisogno, Cava Dei Tirreni

Apologies For Absence

I wish to apologise to those of you expecting a report of the Devoran visit. Unfortunately it was wiped in the USB drive crash. In order to bring you a magazine this month we used some other material. The article is being rewritten and we have already re-scanned the photos ready for the next issue.

Ben Mullett

General Hints and Tips

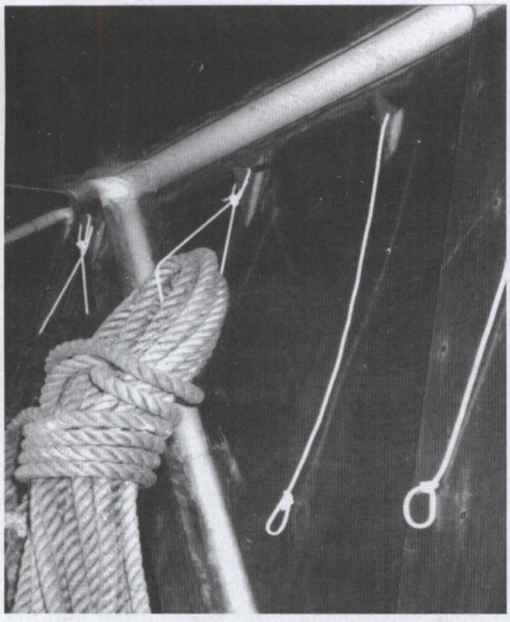
When trying to decide if the boat of your dreams is going to work out well in reality I have two hints -

1. Visit as many meetings as possible to chat to owners and get invited aboard
2. Build a mock up of at least one cabin in your hallway or a spare room. Just support two sheets of plywood at the correct angle and distance apart to give the floor width and then a piece for the roof for the simplest version. Make it more complex if you need to, but make a point of having your coffee or meal breaks within it.

Lashings around tillers do not work until they are well filled with epoxy. I suggest epoxying glass mats strips or glass tape instead which give a much tidier finish and can be painted very much easier.

Cutting glass mat with scissors is not recommended as it blunts scissors. So what? Cutting with a knife is fine so long as you have you cutting board handy so I mainly use scissors and when they get blunt I sharpen them as you would with any other cutting tool. I sharpen them with medium and fine grades on either a belt sander or a disc fitting on the drill.

You always get damaged belts and sanding disc centres that are useful for hand sanding but I also use bits of these to make sanding boards for those difficult corners and angles. Use an off-cut of softwood with the end shaped how you want it and a dab of epoxy when you next mix some. Imagine for example making a sander for the centre board case of a dinghy and then also a home made brush the same length with a bit of sponge or cloth to apply the epoxy or varnish.



Hanging ropes in sail lockers. The photo should explain almost everything. Triangular off-cuts of 6 mm ply glued to the hull-side with a captive cord with a loop on the end. What may not be clear on the photo is that when you hang a rope, feed the hanging cord from the front, or from the back and give the rope a half twist. The loop end of the cord is then more vertical closer to the hull-side. This means that the rope will stay in place in almost all conditions and when you want a rope (in a hurry?) you just reach in and pull it up towards you through the hatch.

The shape of the triangle can vary according the angle of the hull-side.

Ken Hook
(Ken has built a Tiki 21 and a Tiki 39 (stretched Tiki 31)

Scott Brown Multihulls

INDEPENDENT WORLDWIDE

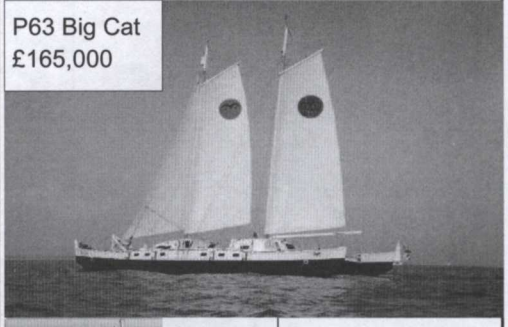
S B Wharram Catamaran Brokerage

For a professional service

Boats currently for sale Include:

Model	Number	Asking price
Hitia 17	4	£550 - DM6.5k
Tiki 21	5	Eu4k — £4.5k
Tanenui	2	£5k-6k
Pahi 26	1	22,000DM
Tiki 26	2	£9k-10.5k
Pahi 31	3	£9.5k-13.5k
Tiki 31	1	£12k
Tiki 30	2	£17k-19k
Tangaroa 4	1	£21k
Narai Mk4	1	£25k
Pahi 42	5	£18k—£42k
Oro	1	$40k
Pahi 63	2	Contact me

P63 Big Cat
£165,000



P31 Destiny
£13,500

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Torpoint
Cornwall
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Tel: +44 (0) 1752 812777
fax: +44 (0) 1752 812888
Scott.Brown@multihulls.uk.com

Up-to-date list with prices, photos, inventories etc on:

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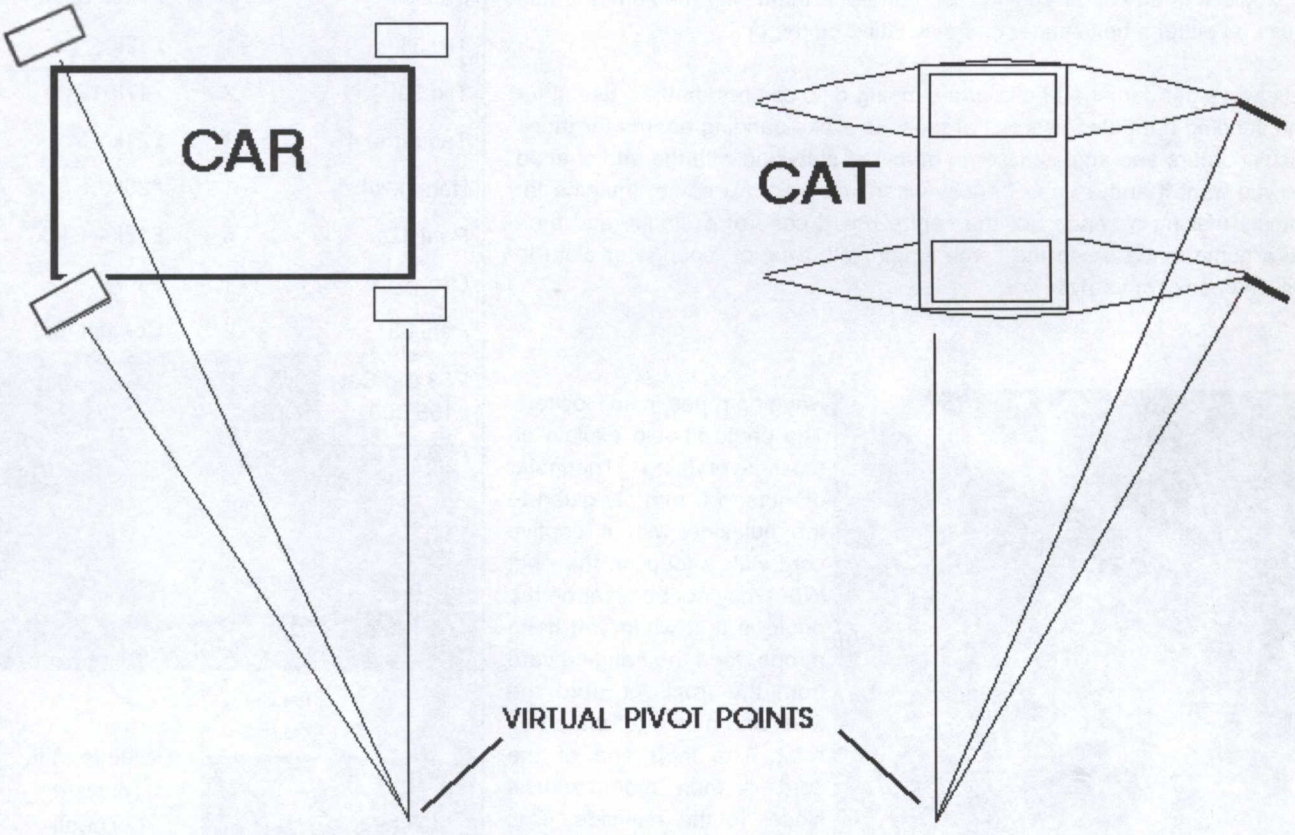
Steering Oars, Dagger-boards, Ackerman Angles and Double Canoes.
by Stoney Bourke, Fiordland, New Zealand

The Ackerman Angle

If you sit in your car (stationary please) and wind the steering wheel over hard one way, then get out and have a look at the front wheels, you will find that the inside front wheel is angled tighter than the outside wheel. This is due to the Ackerman angle, it works either way, a very clever man was Mr. Ackerman. Your car also includes a differential at the driving(s/b rear) wheels. This automatically slows down the inside wheel and speeds up the outside wheel.

Without Ackerman and the differential, tight manoeuvres and tight cornering in your car would be much more exciting! This is due to tyre scrub - the tyre dragging sideways. With our double canoes, using rudders and steering from the sterns, Mr. Ackerman's cute wee angle is very useful.

We can also make "toe-in" by setting up the rudders so that the very aft edge is angled out wider than the keels of the hulls, water pressure is trying to push them together as our vessel moves forwards. Put a small amount of helm on either way, the outside rudder lines up with the keel giving less resistance, while the inside rudder has more steering angle (now presenting more surface area to the water moving over it) creating more resistance.
Properly set up, Ackerman angle and toe-in can give more stable straight line steering (with a taut feel) and quicker course changes with less tiller movement. The outside hull always has less rudder angle than the inner hull when turning. This applying of more or less resistance to either hull to steer is also applicable to towing your dinghy or streaming a drogue whilst running before big winds.



Steering Oars & Dagger-boards

Whilst sailing across the wind, a well-balanced sailboat will round up into the wind if the helm is released. Because of the distance between the hulls of a double canoe, in order to round up the hull, the hull on the inside of the turn must go slower, whilst the outside hull should ideally speed up.

From my research, I find the Polynesians set their centre of effort of their sails so as to have this rounding up effect. Their steering oar was not used as a rudder, rather it was pushed down into the water to create a resistance against the downwind hull to stop this hull from going faster and rounding up. Conversely, pushing the steering oar into the water on the upwind side assisted rounding up.
At the same time they usually had plenty of crew to paddle from the hulls as well. Dagger-boards in Pahi craft are not about stopping leeway; rather I would try using them to create resistance in order to have the vessel self steer.

Double Canoes (cont'd)

Drogues

In these southern regions, our cyclones rotate clockwise; opposite applies in the Northern Hemisphere. Given the sea room and the need to run away from a southern cyclone, one puts the wind on the starboard stern quarter and uses the wind speed to stop from going into the eye of the cyclone. If the vessel becomes unstable through too much boat speed, a drogue is towed from the stern. This drogue should be at least three waves behind the vessel to prevent it being thrown aboard by wave action. The rope from the drogue should be attached to your vessel ahead of the rudders, because your vessel has just become a huge arrow! The rope has become your steering.

If presented with a collision course situation (yes there are other boats about in this frightening, theoretical storm, also thunder and lightening), one can steer by moving the drogue line across the boat rather than having to cut it away. In heavy conditions, the drogue line will be bar tight and subject to chafe. These things need thought before the event.

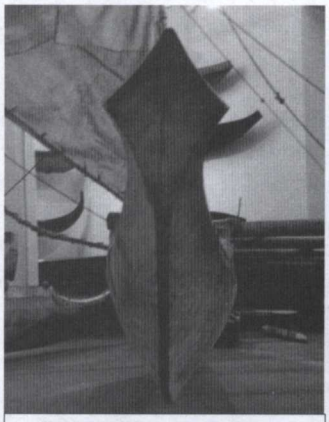
A few years ago down here, a small fleet of cruising yachts met a severe storm while racing from Fiji to NZ, Several of these vessels were abandoned; one was lost with all hands. One of these had the anchor chain pound its' way aft from the bow anchor locker, taking out two bulkheads until it wrapped itself around the engine.
At the same time, all the interior contents were spread around inside the boat including the batteries, which were launched out of their mounts and smashed. Enough mess to tempt one to abandon rather than face the clean up.

From my perspective, on an ocean crossing, once beyond anchoring depth all anchors and chain should be brought to the centre of the vessel and secured. All anchor warps could be joined together and stowed in a large draining plastic barrel. This long length of warp would allow one anchor to be shot deep if needed, or is useful for a sea anchor, drogue or to tow another vessel. May as well have it ready. Some other things I've come across in my research.

Double Canoes & Other Points of Interest

Apparently in the south of N.Z. the Maori double canoes were set up with the bows closer together than the sterns, this may have retarded broaching

There is a dugout river canoe in the Auckland Maritime Museum, from the Wanganui River. This is a small round-bottom vessel about 10 feet long. What caught my eye was the exterior of the hull, which had been grooved from gunnel to gunnel across the bottom. Wide shallow grooves peaked between stylised waves. This could give a speed advantage by increasing waterline length. Certainly the need for speed was great, because coming second often meant being the dinner of the winner!.



Business end of what Cook might have seen, had he not had gunpowder!
Photo: JWD

Captain Cook met Maori double canoes in N.Z. which were carrying more people than the Endeavour and doing three times Endeavour's best speed. As the Maori sailed past they threw stones. Had Cook not had gunpowder (the smoke that kills from afar) he would have had no chance.

Captain Cook recorded Kauri trees, which were 120 feet to the first limb.
N.Z. greenstone tools cut just as well as steel tools, indeed a drill made from greenstone will drill steel.

The Maori also had the worlds' best natural rope. The fibre from N.Z. allowed rope one third smaller than hemp rope yet was stronger and longer lasting. This same fibre was used to make clothing, which was described as linen by European observers, so the ropes and sails of the Maori were first class as well.

Legends recall 184 people in one double canoe travelling from Easter Island to the top of North Island, N.Z. in 13 days. This is approximately 2500 miles and was almost 2000 years ago (almost 200 miles per day).

These sea-people grew up in the boats that their forebears built. Whilst voyaging, they ate and drank only at night.
They towed ropes with mussels growing on them under the centre platform. These mussels provided drinking liquid and food. They carried no water but caught water when it rained.

I believe these people travelled the entire Pacific region and possibly the Atlantic as well, carrying greenstone (the God Stone) and other goods such as Kumara (a variety of sweet potato) and flax for trade and gifts. Certainly their legends record red-skinned peoples and white skinned people with freckles and red hair, fair haired people and also dark haired people with "sleepy eyes" (Asian).

There are only Sea-people and Others. Sea-people are always thinking of how to make their boats bigger, better, faster and safer.

Kevin (aka Stoney) is currently building "Gaia"s southern Sister "Southern Laughter" in Manapouri, Fiordland, N.Z.

More Odious Legislation Ahead?

Received from Peter Green, Wadebridge, Cornwall
"Dear Ken & Anita,
The enclosed copies of NABO (National Association of Boat Owners) News were sent to me by a friend who has run a narrow boat for several years in the midlands. He has now sold her and given up boating completely because of the combined cost and agro. Although affluent by my standard (retired factory worker) he obviously has his limit and British Waterways have found it.
Please read the letters on Page 8 (issue 5) and Page 9 (issue 6) ***(brief synopsis of letters follows - Ed).***
Obviously this sorry state of affairs does not apply to PCA members YET, but I feel that we should be aware of the danger and watchful in case it comes our way. there must be many members who if faced with an annual £500 license fee would be faced with a similar choice.
I should like the committee to be aware of this and perhaps J.W.D. as well. My ex narrow-boating friend sends me these and other mags from time to time, so if you like to be kept up to date on this situation please let me know and I will send you whatever I feel might be of interest or use."

"It was evident more than 5 years ago , when the mandatory BSC hove into view that an evil day was dawning for boaters. The writer goes on to state that they believe that British Waterways has a hidden agenda in forcing the majority of boaters off the water by fair means or foul. Boaters use the network of waterways wearing out equipment but expecting said equipment to be maintained.
BW taking in 20,000 boaters licenses at £500 a time creates a £10 million annual income, "peanuts in corporate terms". Balance that income against the maintenance, staffing etc doesn't make for a profitable picture for BW. But buying up marinas and selling them off for land development, example of Hawkesbury quoted, is a much more profitable venture. **Is privatisation in BWs future plans ?**
A second complaint regarding the constantly changing nature of the BSC (Boating Safety Certificate) concerning refurbishment of older boats, quoting the relative ease of obtaining a BSC (four years earlier) but that "quite extensive modifications will have to be made in order to get the next one". What will happen when the current engine expires. It's doubtful that a straight replacement be allowed. **What expense will be incurred to comply then ? .**

A second writer states "In 1997 it cost me £547 to get a safety certificate and a boat, no safer (and in one respect less safe) than it was before the BSS inspection. BSS Tests and Certificate accounted for £87 and a gas test point & ventilation notice a further £20.
The remaining £404, a staggering 80% of the costs, were unnecessary. Unnecessary for they are all contained in Edition Two Exemptions list."

Is this where we are headed with RCD ?
(European Unions - Recreational Craft Directive) ?.

Are there PCA members willing to help the committee to try and keep a tight rein on RCD legislation?.

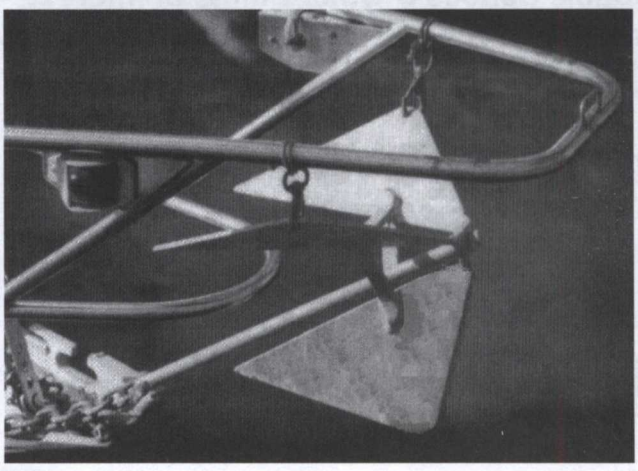
Or will general apathy allow the bureaucrats to impose what they will on us ?
We do have an excellent contact within the EU who can guide our direction & actions, but we do need to act & soon.
We probably need to identify and contact like-minded affected groups such as the NABO.

Dave Peak
Please contact me or any other committee member if you want to help out on this issue

Bullawaga Anchor Product Review by Gerald Daoust

Every catamaran needs one of these, I've been testing one (9 lbs) on my 18 ft sloop in sand, weeds, weeds & sand small rock bottoms...in winds of 40 knots plus and shifting. I've used scopes of 7 & 10 to 1 with 30' of 1/4" chain and 3/8" rope.
It's a drop it and forget kind of anchor, always sets well the first time, extraordinary in wind shifts, tremendous holding power and LIGHTWEIGHT.

Available from BULLAWAGA Anchors, Utica, NY, USA
Available in following sizes -
9 lb (up to 20' boat), 17 lb (20-30'), 27 lb (30-37'), 37 lb (37-45') & 68 lb (up to 60').



A Word of Warning

I would have thought by now that enough articles have been written about working with epoxy to make things fairly clear to even the most dim-witted of us. But it would appear That this is not so as I discovered when sheathing the decks & cabin of my Tiki 26.
Everything seemed fine 'til I started sanding the next day. It soon became evident that the second coat of epoxy was coming off in places! A quick scrape with a chisel confirmed my worst fears and so far I have spent two days scraping, sanding and swearing my way back down to the fibreglass.

So what went wrong?

I phoned my epoxy supplier and was very surprised to find that I should have applied the second coat no more than 2 hours after the first and that I should have rubbed down the surface with "scotchbrite". The plans and technical instructions that I have read, only say that the second coat of epoxy should be applied "the same day".

This has been a hard lesson for me! A mistake I will not make again and hopefully something that can be avoided by others in the future.

John Manson, La Vienne, France
PS - Any comments on this subject would be welcome.

(Comments from Dave Peak)
What John came across is a condition called "amine blush (or bloom)".
When the epoxy is curing, amines are released from the hardener and form a tacky film on the surface of your work. Some epoxies release more amine to the surface than others. The cooler the temperature at cure time, the more "amine blush" will form (note to builders in temperate climes).
Some epoxies use a non-amine based hardener and will not form this film.

To remove the "amine blush" a damp "scotchbrite" pad is recommended. Then wash surface with clean fresh water to remove all amine remnants.

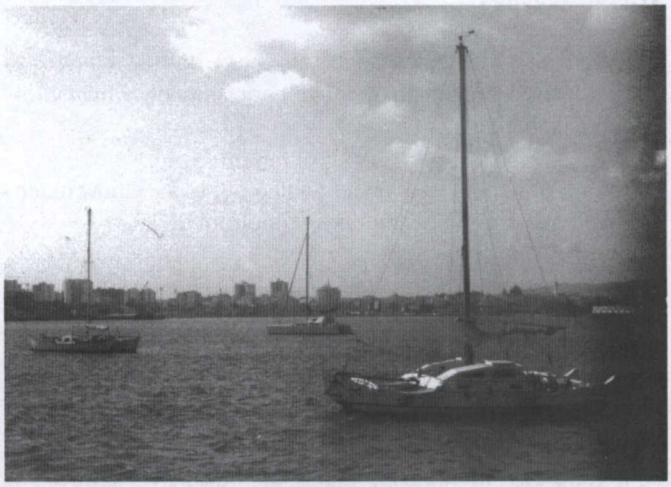
The amine scrubbing can be avoided by applying "peel ply" to the surface of the work,
when the first coat has cured and second (or subsequent) coat is ready to be applied just peel the "peel ply" from the work surface. Any "amine blush" will have cured on the surface of the peel ply and the texture of the "peel ply" will leave a slightly abraded surface for the next layer of epoxy to "key" to.
"Peel ply" whilst not cheap, does mean that if you don't get back to your project for several days/weeks/whatever you won't need to sand the surface before applying the next coat.

Portugese Wharram Photos

Courtesy of Malcolm McFarlane, Paris, France

Here's a couple of a few Wharrams spotted by Malcolm in Faro Lagoon & Figueria da Foz, Portugal

Tiki in Figueria Da Foz



Pahi 31 & classic in Faro Lagoon.

Wharram cats outnumbering modern bridge-deck cats 2:1 ?.
Has the rest of the world woken up to what great boats we have ?.

Energy Saving Navigation Lights

by Will Lee

During an overnight passage from Portimao to Tavira on the Algarve in May 2000, Meira had a total electric failure. The battery was flat. The first symptom was the tricolour looking a bit dim. Next the GPS turned itself off, and shortly after this the autohelm gave up with a sad beep, trailing away to nothing. It was 5am, so there was not long until daybreak.

The next day we discovered that one of the two 30W solar panels was not contributing to charging. Having fixed that and made a special effort to use no electricity the whole day, we set off in good spirits for Cadiz.

At about 5am the same thing happened, only it was less amusing this time because there were ships about, the 24 hour traffic, coming and going from that huge harbour.

When we got there (Cadiz is a gorgeous place by the way), we set about measuring the current from every single item aboard and found the following:

Compass light - 400mA
Autohelm (average) - 500mA
Chartlight - 450mA
White - 1000mA
Cabin light - 600mA
GPS - 400mA
Tri - 2000mA

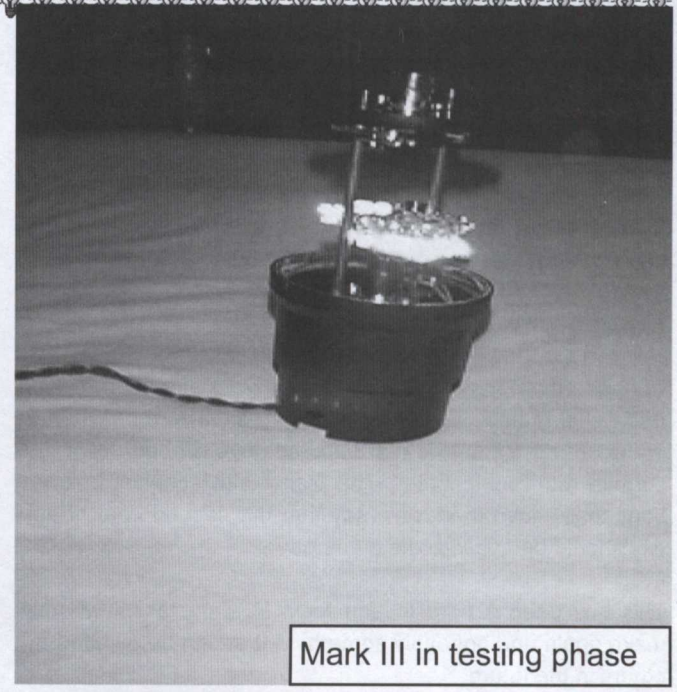
You can see that the bulk of our hard earned electricity budget went on heating a masthead filament, which produced a little bit of light as well.

When we got home I set about finding out exactly how much light you need, and how much you get from LEDs.

A 25W filament bulb makes about 8 Candle power, and draws about 2A. For a vessel under 12m, you need 0.9 candle power in the red and green sections, and 4.3 candle power in the white.

The dioptric (=special Fresnel type lens which concentrates light towards the horizon, found on basically all navlight housings) doubles the candle power going towards the horizon. This means that my 25W bulb puts out about 16 candle power from the white part, and very approximately 3 candle power from the red/green parts. You can see that legally I could have reduced the power of the bulb from 25W to less than 10W, reducing the power consumption at a stroke. I was not happy to do this and set about finding other ways, armed with my GCSE in electronics!

LEDs (Light Emitting Diodes) are the type of lamp the your television uses to tell you it is on stand-by. They are tiny lumps of silicon, contaminated with even tinier quantities of impurities which mean that they glow a specific colour when connected to electricity. Filament bulbs work by heating the filament until it is white hot, at least 95% of the energy coming out as heat and not improving your visibility at night one bit. LEDs are different.



Mark III in testing phase

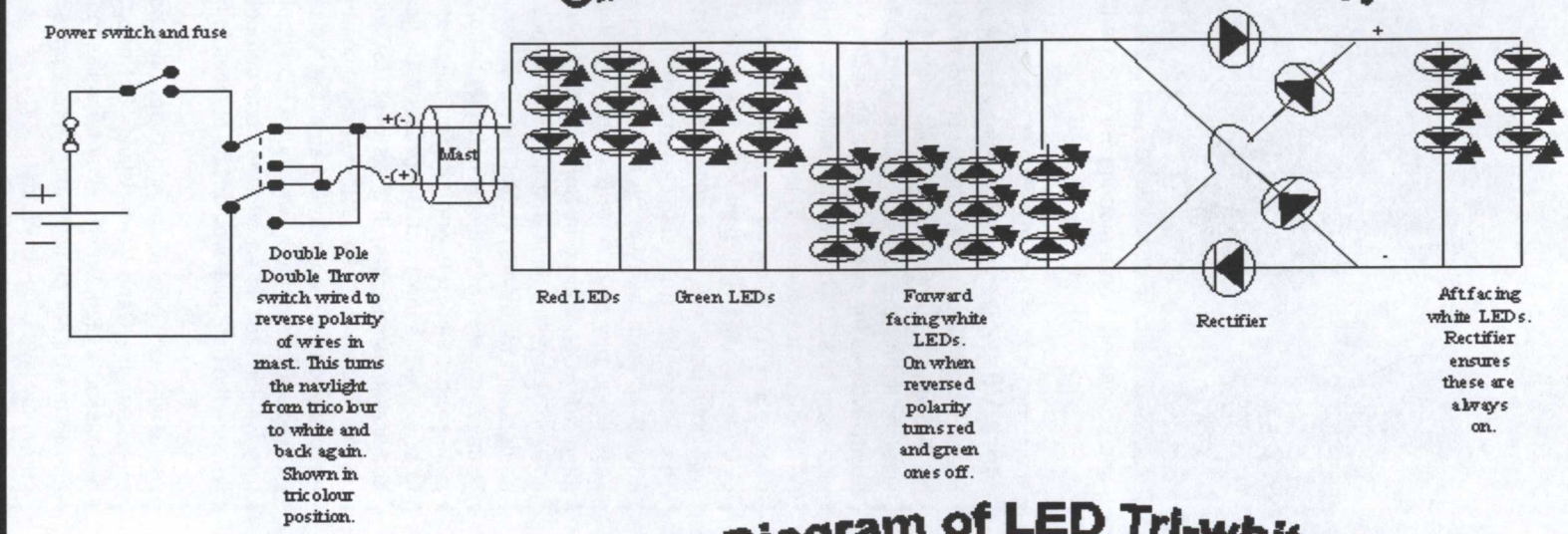
The electricity passing through them elevates the energy state of electrons in the semi-conductor. When these 'fall down' in energy level they emit a photon of light of a very specific colour. The electricity is converted directly into light, with an efficiency of 'over' 60% (I never managed to get a straight answer about how much 'over' it is from LED professionals, but its a lot better than filament bulbs anyway).

LEDs come in different types, called 'bright', 'ultra-bright', 'Extreme-brightness'. This tells you the impurities used in the silicon. As well as this, the cone of light coming from the LEDs can be as narrow as 8 degrees, or as wide as 180 degrees. Unsurprisingly, if the same amount of light is coming from the semi-conductor, it will be brighter if kept to a narrow beam of 8 degrees, than if it spreads to 180 degrees. The 8 degree red LEDs made 6 candlepower, which is loads more than you need! All of this for 50mA, at 3.6V! I chose the brightest type (called extreme brightness at the time, but the technology is moving along very fast) with a 30 degs cone, giving 4.5 candle power, except for the whites, which were 5.6. These I arranged in banks of 6 (6 green, 6 red, 6 white) in a circle facing outwards. These I arranged in banks of 6 (6 green, 6 red, 6 white) in a circle facing outwards.

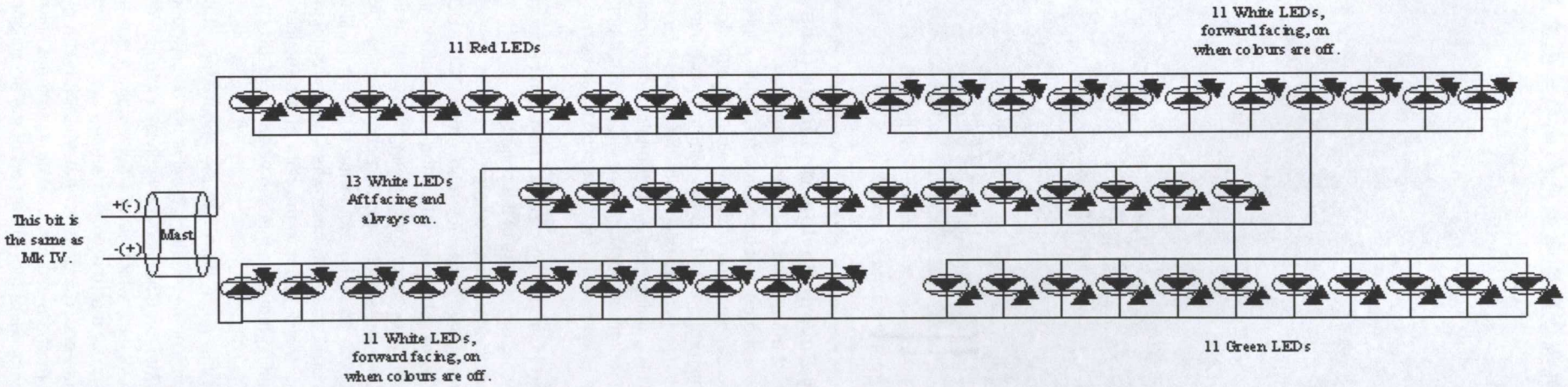
This means they were 20 degs apart, allowing a 10 deg overlap. This gives light similar the the 25W filament, but instead of drawing 2A, it draws 300mA. This was put together on some veroboard.

LEDs are diodes. This means that if the polarity is reversed in the circuit, the LEDs will do nothing. This has a happy side effect for those of us building LED masthead lights. In the normal way, 3 wires are needed to supply a masthead tri-white: One for the tricolour, one for the white, and a common. With LEDs, because they only light up with the current applied in one direction, only two wires are needed.

Circuit Diagram of LED Tri-White Mk IV


Power switch and fuse
+(-)
-(+)
Mast
Double Pole Double Throw switch wired to reverse polarity of wires in mast. This turns the navlight from tricolour to white and back again. Shown in tricolour position.
Red LEDs
Green LEDs
Forward facing white LEDs. On when reversed polarity turns red and green ones off.
+
-
Rectifier
Aft facing white LEDs. Rectifier ensures these are always on.

Circuit Diagram of LED Tri-white Mk VII.


11 Red LEDs
11 White LEDs, forward facing, on when colours are off.
13 White LEDs Aft facing and always on.
This bit is the same as Mk IV.
+(-)
-(+)
Mast
11 White LEDs, forward facing, on when colours are off.
11 Green LEDs

Noel de Speville Enjoying a sail on his "new" Hinemoa

Noel de Speville is a new member of the PCA. He has a Hinemoa and is keeping it on a mooring in Poole Harbour. He is converting it from cutter rig to sloop.

Energy Saving Navigation Lights (Contd)

I bought 12 more white LEDs and a rectifier, and soldered another veroboard which covered the same angles as the red and green sections of the tricolour. See photo.
I used this property of LEDs to wire in the coloured arc of the tricolour 'in-anti-parallel' with the forward facing white LEDs. This means that with the electricity applied one way, the red/green sections light up, an with it applied the other the white forward facing section lights up.

But how, I hear you ask, do you make the aft-facing white LEDs sty on, regardless of the polarity?
Well, dear reader, that is where the rectifier comes in. It is a tiny component made for converting AC to DC and is perfect for the job. If you follow the current through, imagining the 4 diodes (not light emitting this time) of the rectifier as 'one-way-streets' allowing current to flow in the direction of the arrow but not in the other, you will see that in both polarities of the mast-wires, the wire going across the top of the diagram to the right of the rectifier is positive, meaning that the aft facing white LEDs are always lit.

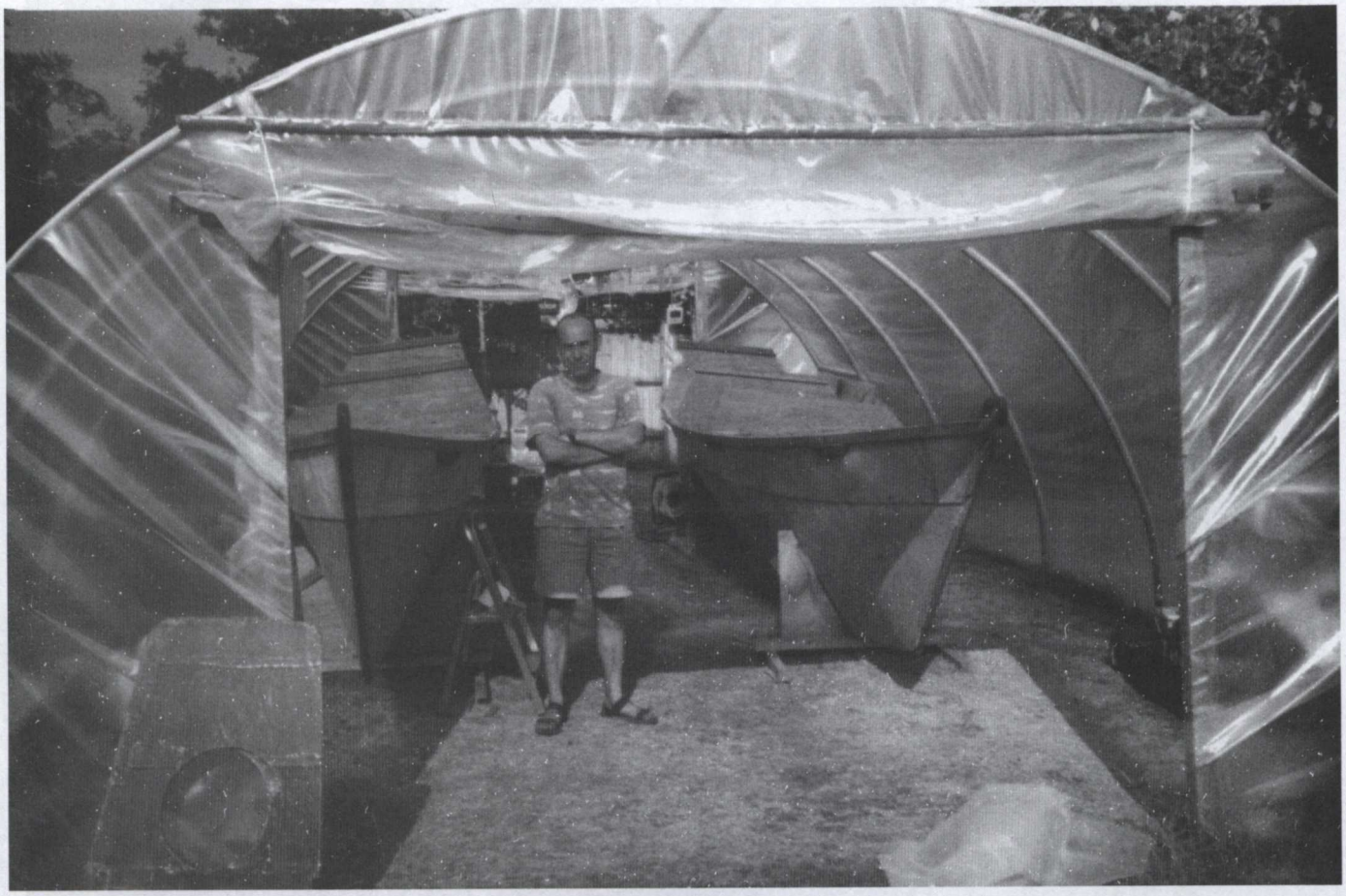
Mark IV (Please don't ask me about Marks I-III) is up and running at the moment, but it is not a very good use of components, and the tricolour is divided into 120 degrees for each colour, which is not quite right. I am sure the reader knows that the correct angles are 112.5 degs for the colours and 135 degs for the white. It has a plug from the bottom of a masthead bulb on it, so it fits onto the unmodified socket of the 'white' part of the aquasignal quick-fit tri-white.

Mark VII (Again, you are at liberty to not ask me about Marks V and VI) is on the drawingboard, and if it does not go the way of numbers V and VI, I plan to build it from scratch. It has the correct angles, and uses the LEDs themselves as the rectifier for the aft facing white ones. It also uses 32 LEDs right around rather than 18 in the Mark IV. See circuit diagram. This means that there is 11.25 degs per LED, allowing narrower beamed (=brighter) LEDs to be used. The plan is to use a bit of scrap sink-type drain pipe, with holes drilled for the LEDs to poke out. This offsets the truly startling cost of the LEDs (about 85UKP for the mark IV if you buy them from Maplin retail. Less if you buy them from RS, and even less if you get them from Optosource in Northumbria (www.optosource.co.uk)). You might think that it is a lot to pay - and you'd be right, but for a small Polynesian Catamaran it is offset by savings of weight and cost of bigger batteries and solar panels etc. I think it is worth it. You will allegedly be able to buy a unit soon from Deep Creek Designs at (www.deepcreekdesigns.com). It costs over USD350, and if you look very carefully at the picture you will see that the LEDs are pointing at the sky rather than at the horizon. I emailed these guys to ask them who their LED supplier was and they wouldn't tell, in an effort to keep competition at bay. I'm sure their supplier wouldn't be pleased to find that out!

As I write we (Lucy, Meira and I) are on a cargo ship en route from the Cape Verde Islands to Portugal (via Guinnea-Bissau!). Mark VII will either be built soon after we return to the UK, or shelved for a winter project. I'll let you know how I get on. Fair Winds!

TIKI 26 Building Progress Report from Ken Hook

Jeremy Slack is progressing with his Tiki26 build in a poly-tunnel in Poole.
He is building to a very high standard but has come up against a problem of timing. His work is probably taking him to Australia next autumn and he wants the boat finished to enjoy some sailing in Poole Harbour and around before then. The launch target is Easter 2001 and he has asked me to help him achieve that.
The photo was taken in the summer. Jeremy hasn't had time to pose for any more photos since then. The decks, cabin sides and tops are all on now and glassing of the hulls will happen very soon. The crossbeams and cockpit are already finished apart from painting.



FOR SALE – This TIKI 21
See dittybag for details

ERRATUM

Issue 42
"Pilgrim's Mast"

Column 2
Time Taken

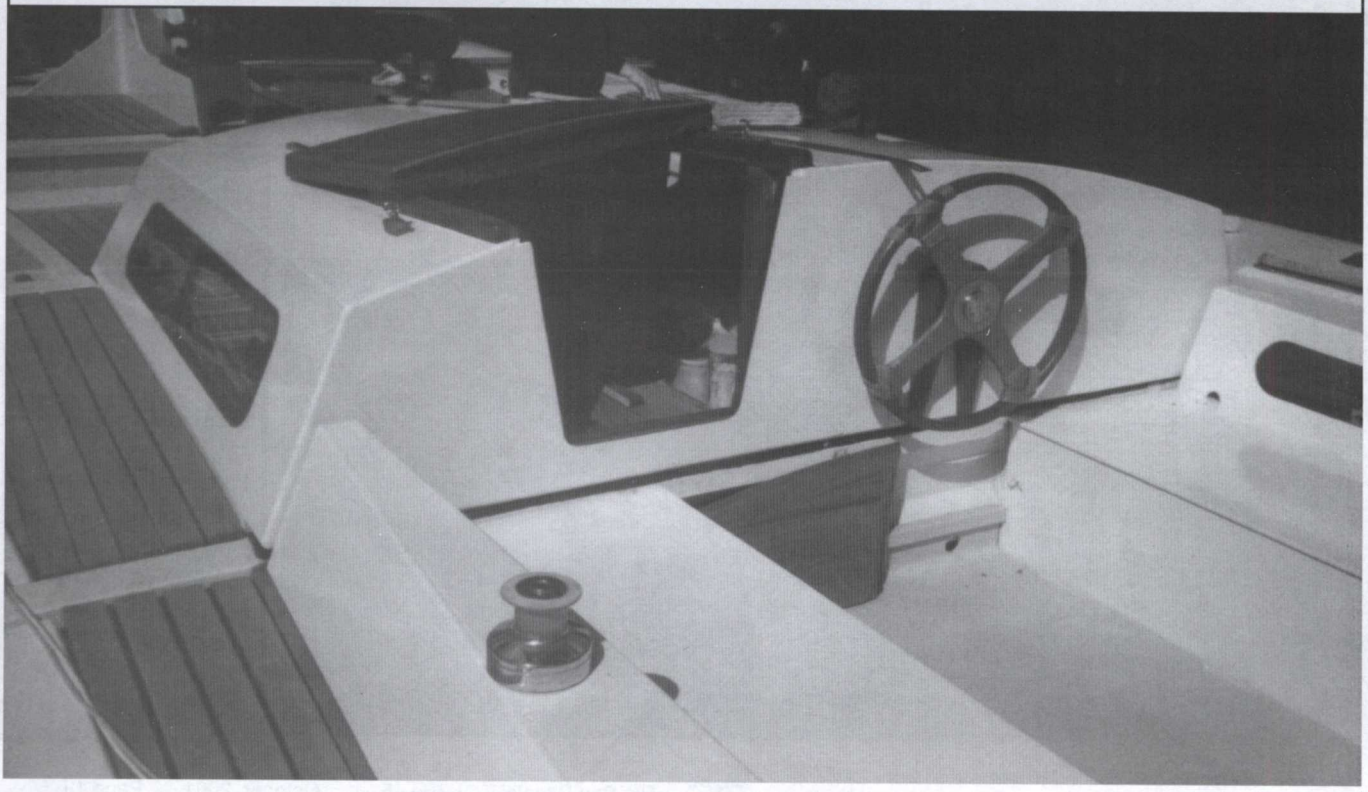
Missing Line:

1) Set up Router and adjust using strips of rough lumber of exactly same dimension as mast lumber 15 mins.

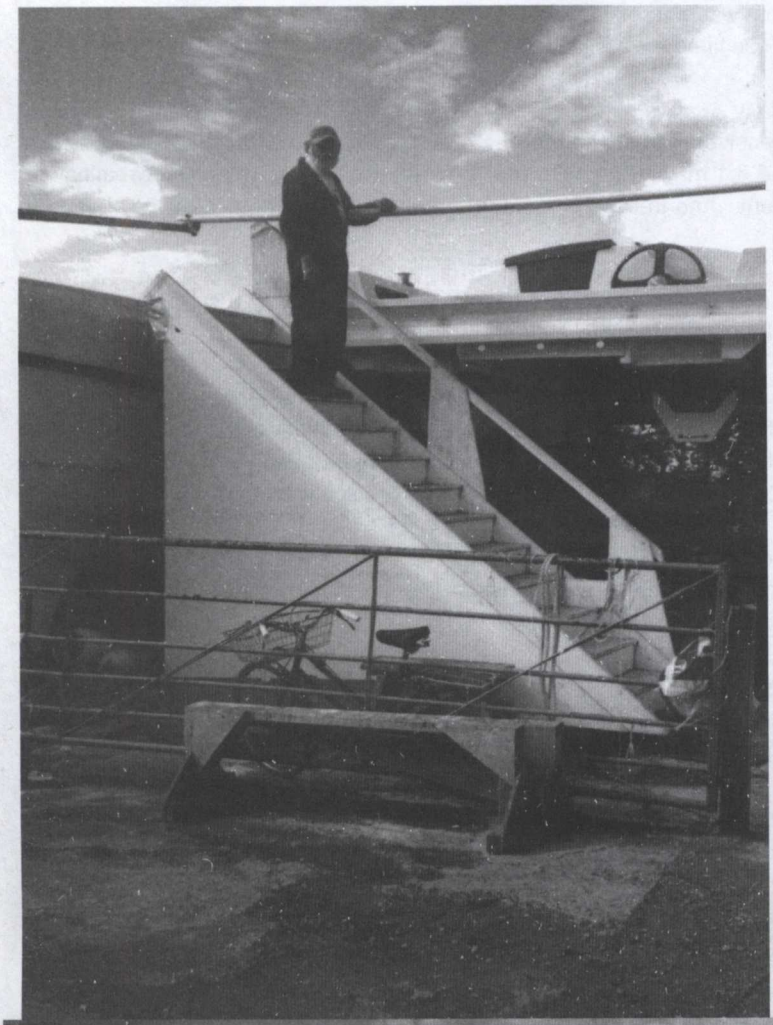
WELL WORTH A VISIT – TIKI 46 #1

Anita and I recently went to visit Ann and Neville Clement at Trowbridge. They are living aboard a narrow boat close by where they are well on the way to completing "PEACE IV", Tiki46 sail no. 1 and they are hoping to launch at Bristol in April 2002.

There have been problems with de-laminating plywood early in the project but that is all behind them now. Their boat is looking very good, both inside and out and here are a few photos to whet your appetite. They will be delighted to show PCA members over their boat. Ring first on their mobile, 07860 196502, to get directions and so you don't interrupt them during a massive epoxying or painting session



WELL WORTH A VISIT – TIKI 46 #1



The steps that Neville are standing on, double up as a lockable tool storage. Neville insists that substantial steps such as these are essential when building a boat this size. They are so much safer to use when carrying loads both up and down.

The sunken part of the foredeck has been nicknamed "the dance-floor" by Ann and it is easy to see why.

The pod has seated headroom inside. There is a hinged instrument panel on the left port side which gives very easy access to the rear of the instruments.

The chart table is ahead of this on the port side. What luxury – a forward facing chart table in dry conditions with the ability to actually see where you're supposed to be going!

On the starboard side of the pod is a double bunk, fore and aft, where the helm can rest and still keep an excellent look-out in almost all directions without getting wet.

How much for a snap shackle? By Ben Mullett

The child inside us is often attracted by shiny things, but with snap shackles as with many other items, there is often a price to pay. For example, the main sheet –to-clew shackle specified for a Tiki 30 is a fine Gibb item that (as I recall) they offered to us at a stunning £32 (around US$48).

You gulp, buy it and move on. Yes, there are less expensive alternatives, but the ones we found were also specified as less strong than the Gibb. After a moment's thought on the 6:1 main sheet with (maybe) 100 kilos of brawny crew sweating it in tight the Gibb looks like a costly but valuable investment. And there are some gusts where the stoutest crew find it hard to sheet, so yes, it looked worthwhile.

Now it's no use having only one critical item aboard, since it is then bound to fail. We draw the line at a spare mast, but for small items in a critical application there's no excuse, although at that price it's pretty daunting.

Meanwhile, at the other end of the boat, we had lashed the jib sheets to the jib in time-honoured fashion, using the modern equivalent of cod-line. With enough turns to make up the cross-section of a jib sheet we were confident that it was more than adequate, although fairly slow to attach and remove. Unlike the main, where the slab reefing requires the sheet to be moved up to the reefing cringle, the jib had roller reefing, and the sheets were left attached whilst the sail was up.

Reefing the main really called for yet another snap shackle, to pick up the reef cringle with the mainsheet still attached to the clew. Much safer, with less chance of mainsail breaking free of the crew or causing other problems. Ideally one would have one snap shackle for each reef! No way, not at that price.

Now I can't recall when it came to me that we already knew the solution, but whilst working West along the coast of Cornwall with Scott Brown we were chatting about this and that, and touched on the genoa sheet attachment used on Patrick Orme-Lynch's Oro "Alias". Patrick had stayed up late one night to make it, and fitted it the following day.

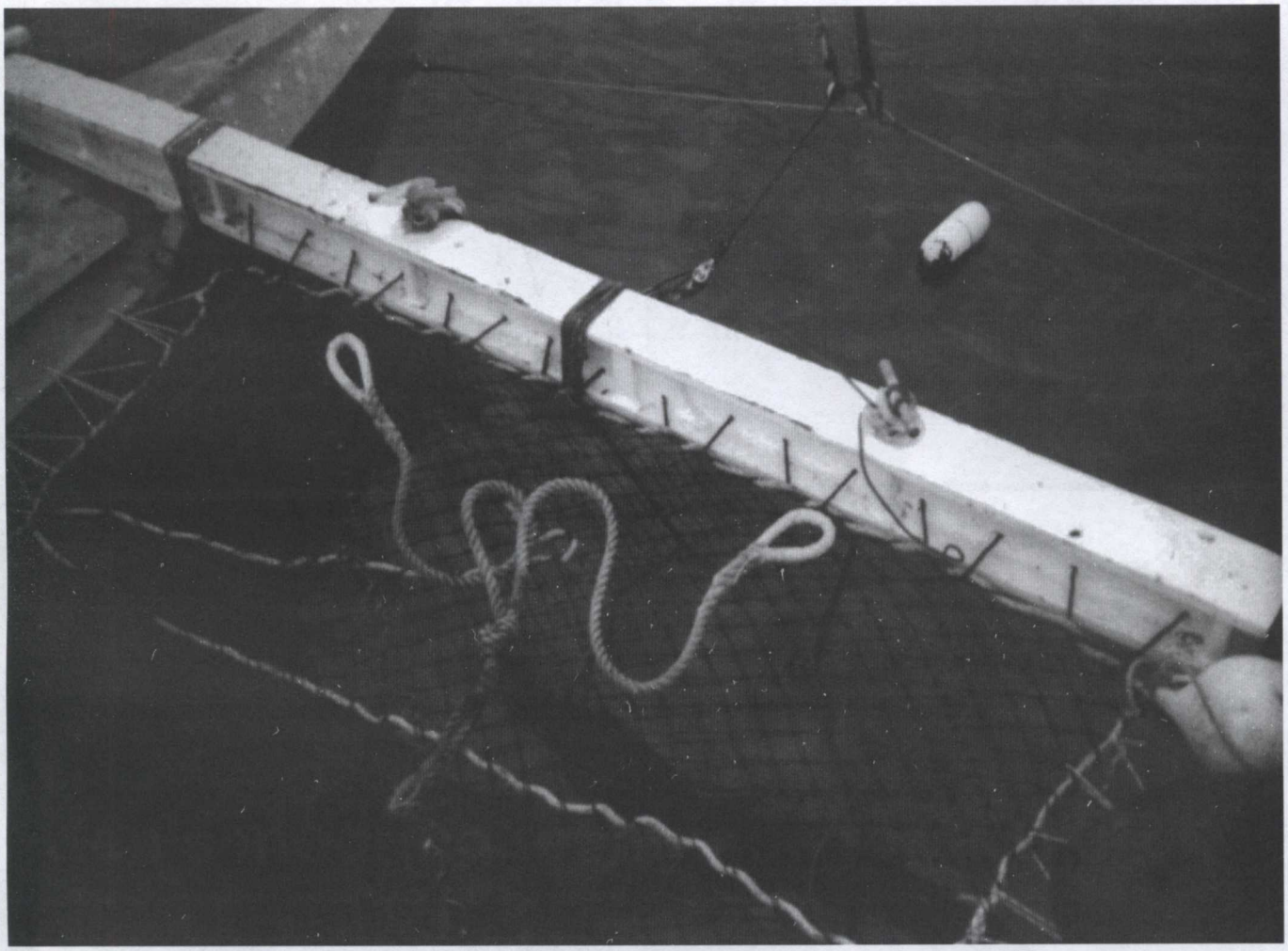
It comprised a doubled length of braided rope with a loop in it, sewn and whipped to itself and to another one that was sewn and whipped into a solid bar-like piece of rope. The loop went through the clew cringle of the genoa, and the bar went through the end of the loop, such that the two were now too big to pass through the cringle. **Instant snap shackle in rope!**

"Right" said Scott, "I'll make one up for reefing the main". And he did, then and there. It sits on a shackle next to the main-sheet block, and dangles about harmlessly until it's time to pull a reef in. The Gibb is still there, and works fine, but the rope attachment works equally well, and is a good deal less painful if it hits you when pulling a reef down.

We have another one, now. I made one for the Jib sheets, rather more crudely, since instead of sewing and whipping sheets and such together, I used a big knot for the main attachment. It still works fine two years and several thousand nautical miles later. The other modification was a knot in the end of the "male" part, which eliminates all the doubling and sewing, as well as providing a positive stop. Why not try it yourself? If not, then would you care to purchase an unused Gibb snap shackle at an advantageous price?

Ken's mooring technique for a Tiki 21.

1. Place two posts over the strong points on the front beam. If you want a wider bridle then reinforce the beam at the required places.
2. Take a length of three part rope and lash the centre round a thimble.
3. A short distance from the thimble make an overhand knot. This removes strain from the lashing at the thimble.
4. At each end of the rope make an eye-splice to fit over the posts.
5. Parcel the eye-splices with strips of old canvas to prevent chafe on the rope. I find the parcelling lasts about two years.



6. Attach the mooring bridle to your riser with the pick up buoy line running through one of the eyes.
7. Some time over the next few months make another so that you can swap them over when the weed growth gets so great you can't easily check the state of your shackles.
8. The photo shows my spare lying on the front netting whilst Kentiki is sitting on its mooring.

Ken Hook

Ken has a Tiki 21, "Kentiki", on a swinging mooring in Poole Harbour. "Kentiki" has been on this arrangement since 1994.

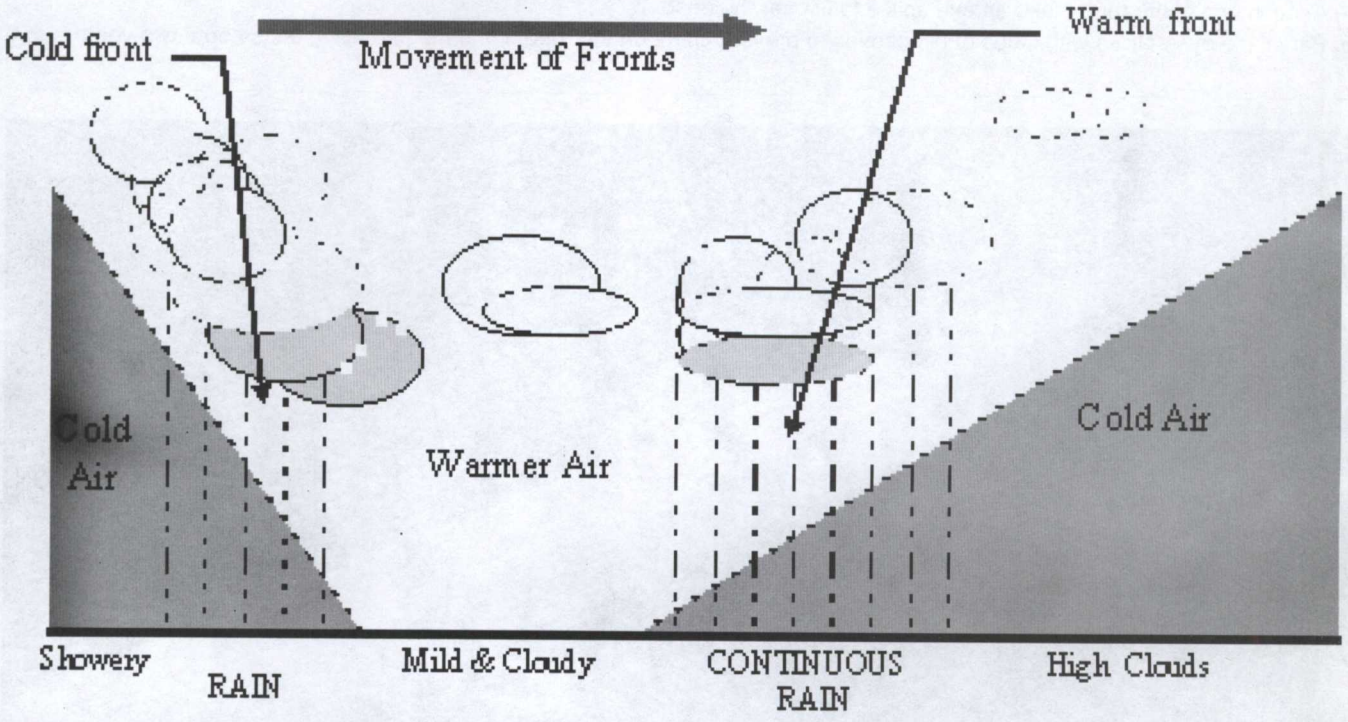
Congratulations on the recent union of Will & Lucy (nee McGavin) Lee.

Weather Fronts (Weather Guesstimation Part II)

Ben Mulllett

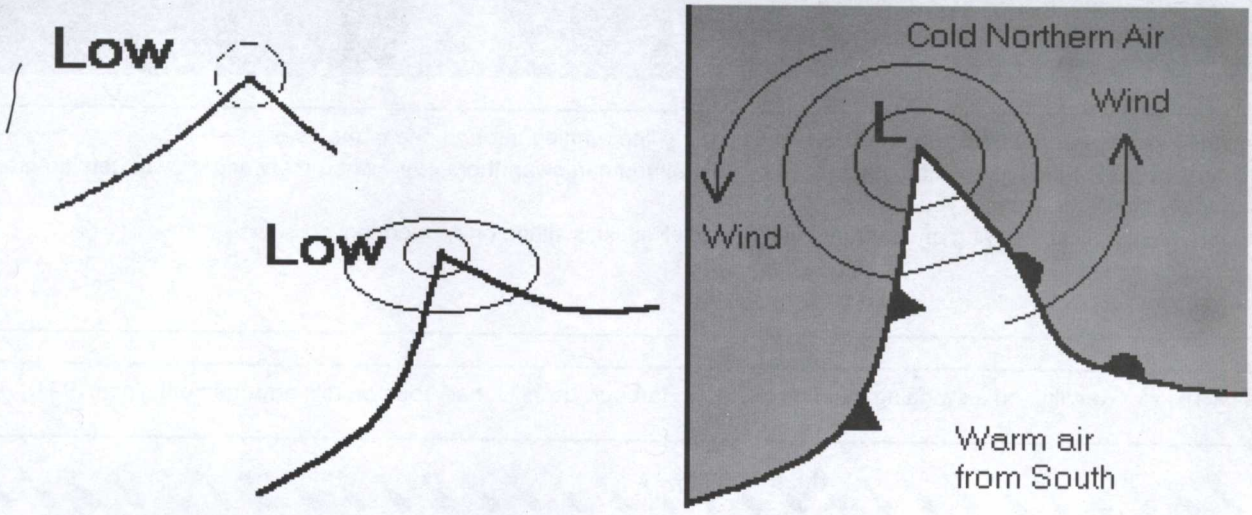
Last issue we talked about Lows forming and then moving about, and what they implied. By looking at the upper cloud movement and the upper wind direction we worked out which way that a Low was moving, and what winds we might expect as a result.

This time we're looking at weather fronts. These occur when (relative) warm air meets cooler air. Typically the cooler air, being heavier, creeps underneath the warmer air like a wedge, making the warmer air rise higher. Moist warm air rising higher will form clouds, and eventually rain. This is shown in Figure 1 where the cold air is squeezing the warm air higher and moving to the right.



So as the 'Frontal System' passes we first see high cloud, then lower, heavier cloud, then rain, and even more rain before it becomes warmer. The 'Warm front' leaves us with mild but cloudy weather in the warm air from the south. After a while the colder air returns with more cloud, rain, then showers. At least, that is the theory, but I do recall a good bit of this happening from time to time in the UK. How about you?

So how are these fronts formed? They come about when a cold air mass lies next to warmer air, and the rotation of the earth helps do the rest. In the Northern hemisphere, (sorry folks, it's the other way round down South) the Northern air tends to be colder, the Southern air warmer. *.....Continued page 26*



Developing Low & Fronts

Cat Corner:Larnaka Marina outer pool

by Yoav Ktalav

Hello Mr Mullett,

As I wrote in my e-mail I was waiting for some photos but meanwhile we "jump" for a few days to Larnaka Cyprus and another "jump" to Mersine, Turkey, hence the delays with my follow up letter.

Cat Corner:

Larnaka Marina outer pool can be a very nasty place whenever there is much easterly blowing, common in spring and autumn. It is worst at the SW end of the dock and many yachts have left their mark on the dock and vice versa. The problem is made worse by congestion and neighbours not setting their gear very well. After many years of fighting this ugly situation I noticed that the NW side of the pool is much better. The depth is only 1 to 1.5 metres so most monos that drag their anchor will never reach us. We tie the bows to the dock with an anchor, short chain and 50 metres of nylon out at the stern. We ride out many easterlies when all other boats run to shelter in the commercial harbour. The long nylon is very important because we are tied to the dock and without it's elasticity we would probably lose our cleats.

This summer is the first we use a GPS. In the Haifa to Larnaka trip we were lucky with good wind both ways and my conclusion from comparing the compass course to the GPS was that we have up to 30 degrees deviation error (as a plywood boat we never have a deviation table). Our second trip to Mersine was blessed with light following wind - drifter all the way and no compass error. On the way back we had to motor for a long time again with no compass error. Only in the last hours of our journey when we faced an unusually strong SSW wind which meant very close hauled sailing I understand that our compass error is probably 25 -30 degrees leeway. I must consider again the merit of home made sails but before I go to a sail-maker I will try (coming winter) to re-cut the main.

Letters Letters Letters Letters Letters

Do send us letters and postcards, emails, telegrams and porpoise post. It's good to hear how things are going in your part of the world, and to share your concerns.

The Pushpit.....

Don't forget to mark in your diary - London Social & E.G.M Sat Jan 12th 2002

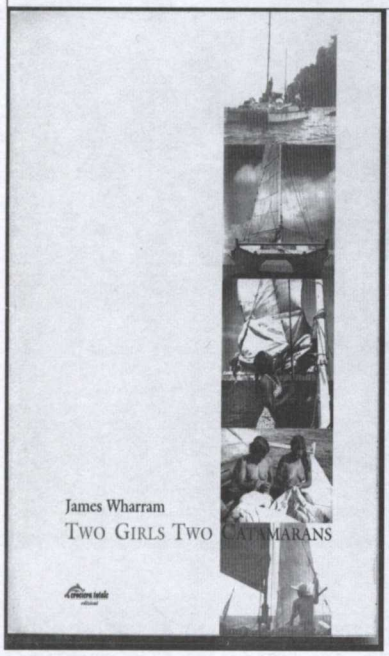
Your PCA Committee.

"Two Girls, Two Catamarans" by James Wharram

Reviewed by Ben Mullett

This seminal work is such a favourite that last year we bought an early copy for £24 from an antiquarian bookseller, so this is unlikely to be an objective review. I love the book. The style has been called uneven, but it reflects for me the changing circumstances of the author in a way that mere description could not.

The new edition is an improvement in many ways - the font is clearer and print process improvements since the early editions allow the fine photos to be situated naturally in the flow of the text. There is a new introduction by James, and a bibliography that the early edition lacks.



The book works on so many levels. It makes a remarkable adventure story, from the days when there were no safety nets for seafarers. The young trio were setting forth across Biscay in their often-scorned "Tangaroa" with the bare minimum of equipment and no previous experience of deep water navigation.
That this was informed courage rather than foolhardiness is evidenced by their eventual arrival on the far side of the Atlantic, surviving their adventures , making marvellous friends en route, and learning much about the sea and catamaran design.

This experience was put to good use in the design of "Rongo". This was a step-function design change, and presaged the mainstream of JWD design for years to come. They sailed her up to New York and public acclaim, then back across the North Atlantic to the UK to complete the first bi-directional catamaran crossing.

Rongo's design process is discussed in some detail, which brings us to the second level of the book. It is a technical history of the early days of successful catamaran design. One glance at Rongo and it is apparent that modern Wharrams owe much to this design breakthrough.

Recall that in the 1950s there was scant regard given to ecosystem study and sustainable resourcing. People who espoused harmony with nature were mocked and derided. It even happens today, but just imagine the 1950s! There were so many ignorant detractors, and sometimes it must have been hard for the Wharrams to keep going.
The personal level in the book reveals much. Their adventurous journeys were not without setbacks and reversals. James is forthright in exposing his own doubts, fears and confusions in adversity. This is the real reason I love the book. It is a very personal account, and written from the heart. I recommend it to you, and to your libraries.

Pub: Crociera Totale Edizione ISBN 66-87210-04-7
27.79 Euros

WEATHER Cont'd from p24

As a Low forms, its rotation draws in air from North and South (Figure 2), which can develop into a frontal system as shown in Figure 3. Eventually the warm air in the front mixes in, but until then it behaves like a dollop of cream in coffee that has previously been stirred. It takes some swirling around before it mixes.
Figure 3 is a plan view of the weather in Figure 1. The Cold Front leads the Warm Front anticlockwise around the Low.
The two fronts can be from a few hours apart to coincident - the front is then said to be 'occluding' and is shown with alternating Warm and Cold symbols on the chart - an 'Occluded Front'. On the ground it feels like lots of rain without a warm bit in between.
The wind is also veering as the fronts go through, with a wind shift that can be very obvious as the line passes you. Most of us have experienced this at one time or another, and it can help being able to predict this.

Finally, may I again recommend the many weather books by Alan Watts, his "Instant Weather Forecasting" is a treasure with copious information condensed into a slim volume. It can take a while to digest because there is so much in it, but it is well worth the effort.

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our Burgee in the Adriatic (issue 43)
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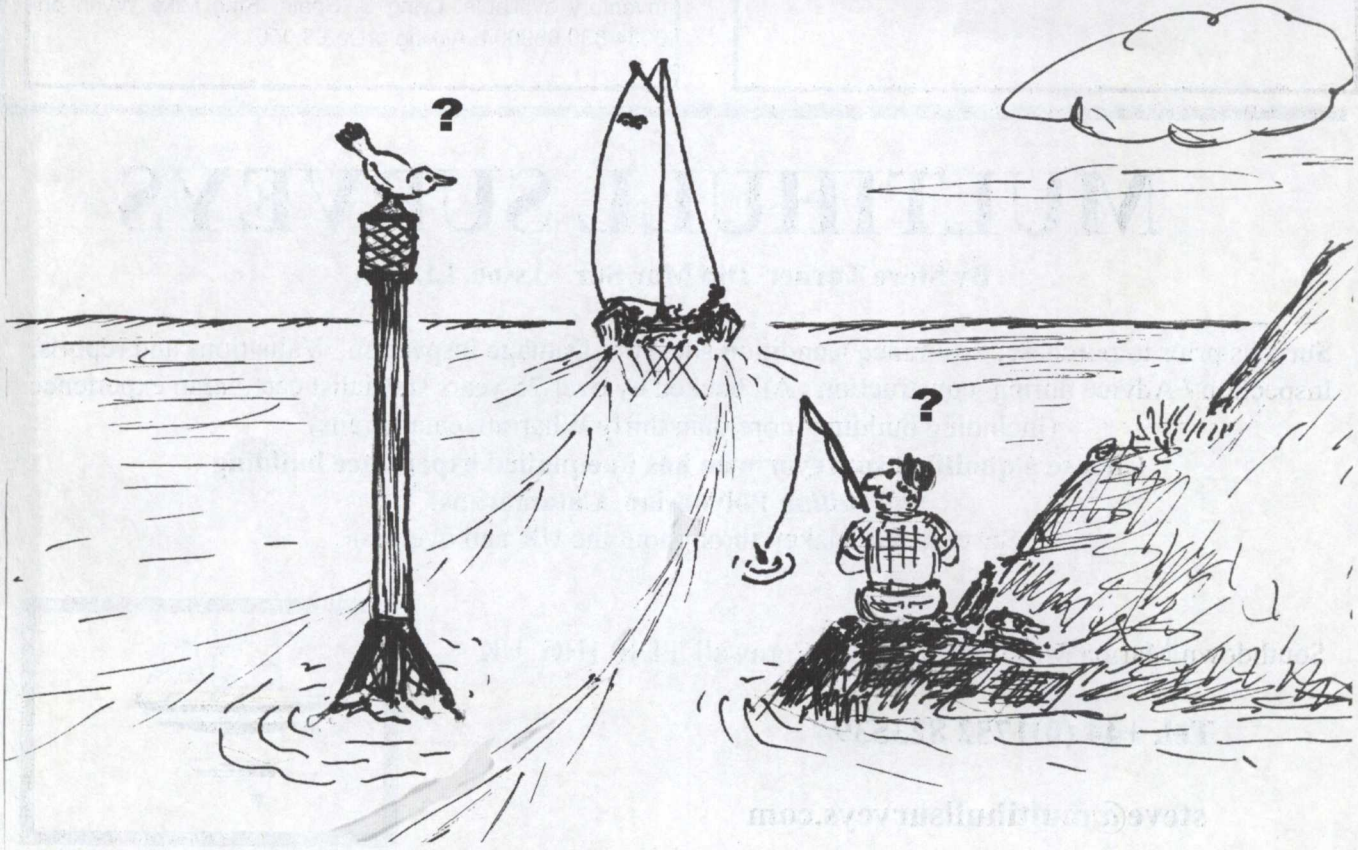

"How do those Wharrams do that?" Ben M.

DITTY BAG

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Hi, Anybody interested in a Wharram Tane based in Essex £4000 Regards Don L

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Keith Pearce has decided to sell his self-built Tiki 21 as he no longer uses it and he needs the space. He says that apart from cosmetic surface treatment the only thing wrong is the hardwood supports on the hulls for the front netting. There is a bit of rot in them and they need replacing. He is offering the boat at the amazing price of £1000 for a quick sale. See the photo somewhere in this magazine. Contact Keith on UK (0)1202 534271 See Photo page 19.

If you too like the idea of visiting the Canaries and don't mind doing a bit of painting and fettling, there are usually a couple of spare bunks on Pilgrim. Why not drop me an email? ben_mullett@lineone.net

VOLVO 2003 28 HP (D shaft) and long cat leg for sale. Complete with instruments, can be seen running. Everything to fit and go.
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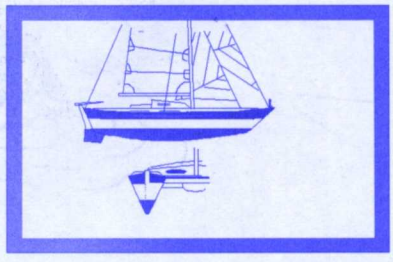
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